

## ABSTRACT

The present invention is directed to a system that produces a characterization target for an existing input/output device using fixed control values and dynamically created control values. The fixed control values are chosen from the existing device color space and provide a sample of the gamut of the device. Important colors are dynamically chosen from a number of different sources including user selections, device target measurements and visual neutrals, and dynamically converted into corresponding colorimetric values. An existing characterization associated with the existing device is used to dynamically convert the colorimetric values into the dynamic control values. The fixed and dynamic control values are used to generate the target. The color patches of the target can be arranged to reduce errors in target reproduction and to allow visual confirmation of the target. The target can then be output, measured and used to characterize the device.